SMART HOME AND OFFICE

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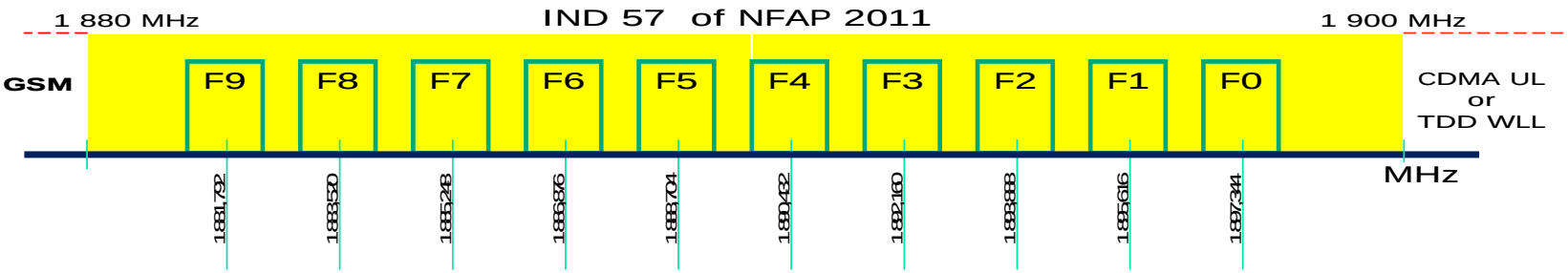
MC(MULTI-CARRIER) CONCEPT

DECT carriers in the band
1880 – 1900 MHz

Nominal positions of DECT carriers F0 – F9



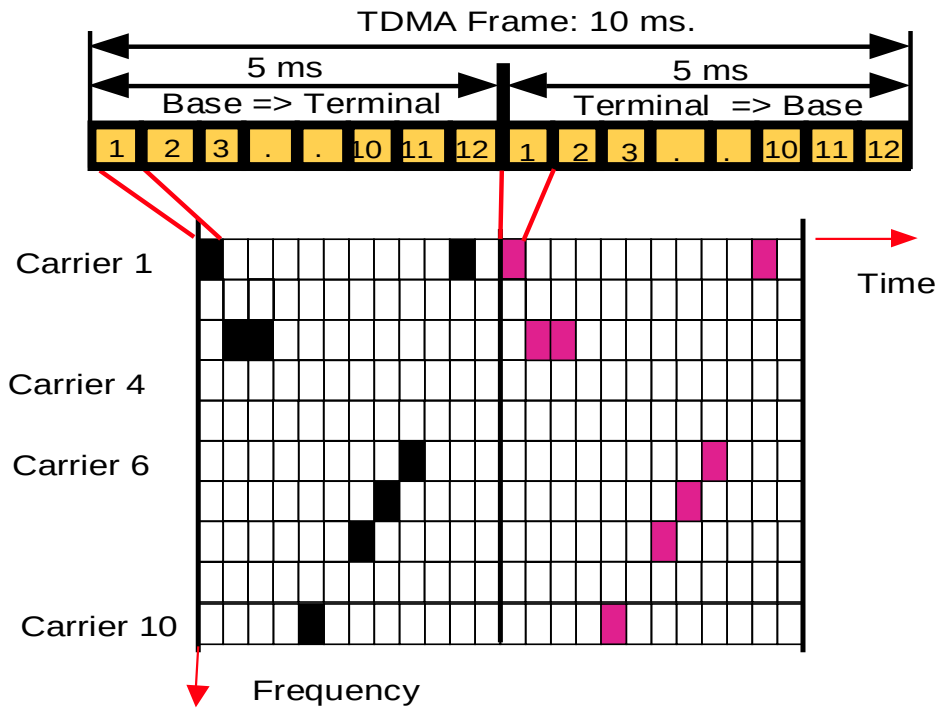
TDMA/TDD(TIME DIVISION MULTIPLE ACCESS) & TIME DIVISION DUPLEX) CONCEPT – DECT EXAMPLE

The DECT Frame and Access Channel Structure

Duplex channels and **double simplex channels** have slots separated exactly 5 ms using the same carrier
Very efficient sharing
Totally 12 per carrier

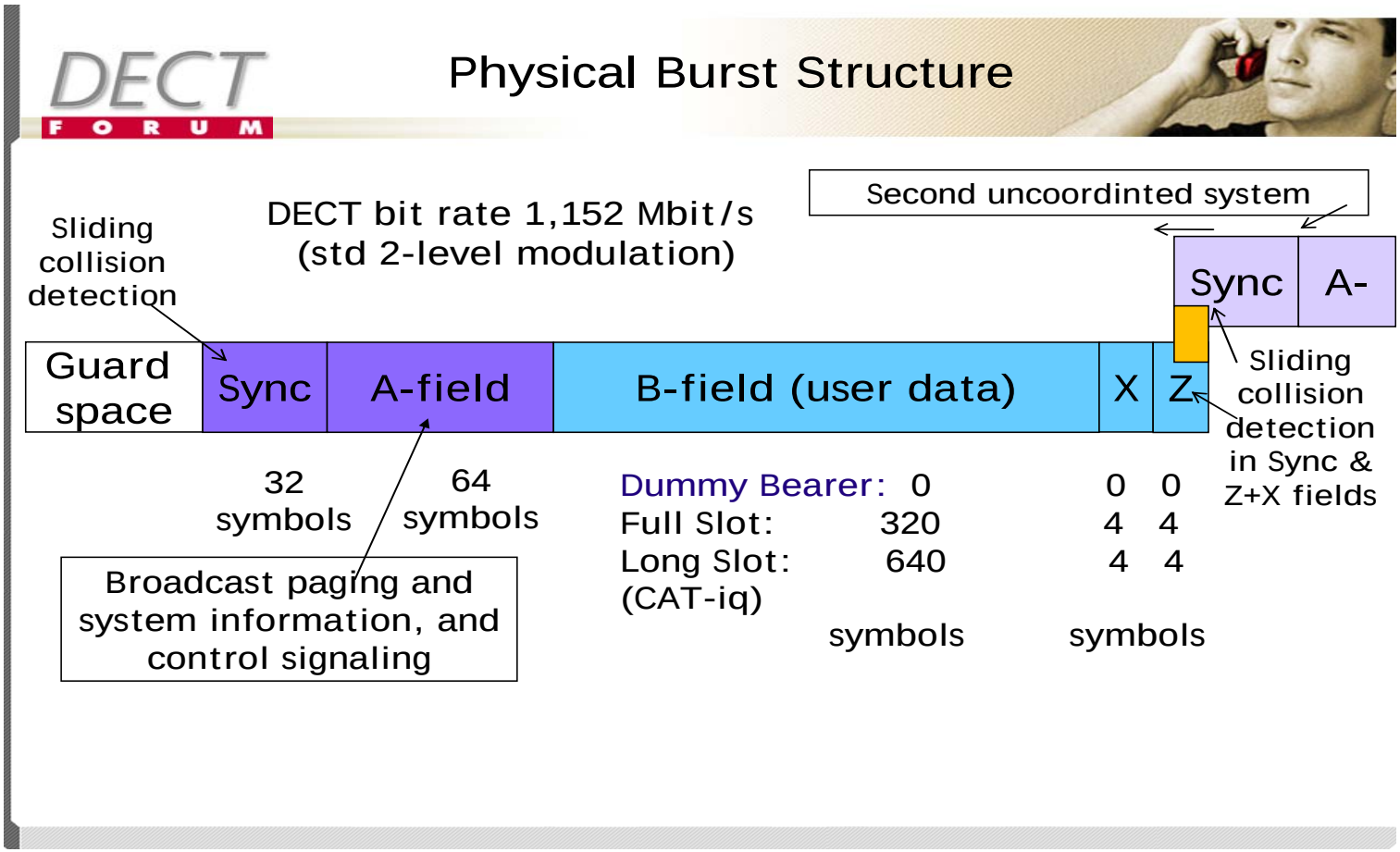
Transmitted timeslot from Base =>Terminal

Received timeslot at Base



DECT base station and handset has a single radio that is required to be able to access all 120 access channels. Can simultaneously access max 12, minimum 6. Next slide

Dual dummy bearers channel on idle FP checked every second by PP for least interference channel/ base station identity/ system capability/ channel number identity/ FP synchronization/ FP status/ Paging information for in-coming call



DECT SYSTEM FEATURES-I

- 32Kbps ADPCM speech
- GFSK modulation and. Handset sensitivity -86dbm at .01BER
- Mobility + Handover
- Encryption code & administration of global unique DECT identity codes - by ETSI-just as for GSM.
- Authentication & Encription procedures
- DECT standard interconnection profiles for GAP/ GSM/ ISDN/ IP/ UMTS
- Very high traffic > 9000Er/sq.km for FPs(25m separation)(1 Erlang represents an average traffic load caused by one basic DECT speech connection - using one frequency/timeslot pair - for 100% of time)
- Simultaneous voice & messages/ multicast/ broadcast
- Robustness - hostile radio environments
- Wide variety PP for home/office applications
- GSM type handsets & features.
- Dual Mode PP for DECT+GSM available
- Intercom with identity/ conference-excellent for residential/SOHO applications.

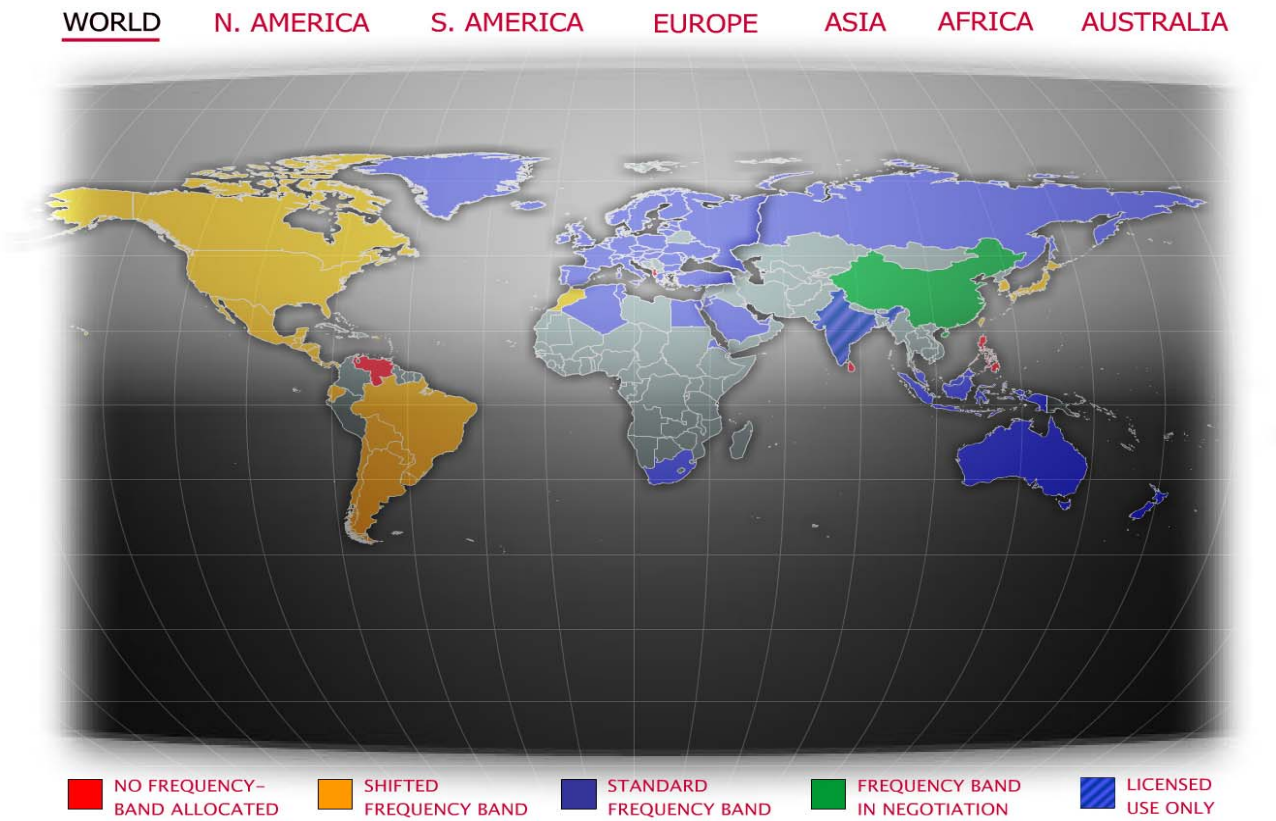
DECT SYSTEM FEATURES-II

- Very low power consumption
- Outstanding standby time and talk time
- Ease of installation – no radio planning/ over the air administration
- Inter-operability between brands
- Open Standard
- ITU-IMT-2000
- Reduction of cellular network load – optimal utilization of cellular band
- DECT best voice/ low data rate technology for residential/ soho/medium enterprise having mobility/ handover/ security.

ADVANTAGES OF DECT - IN ESTABLISHMENTS/ OFFICES/ SOHO ETC

- Reliable cost efficient office/ enterprise/ hospital systems for voice and medium rate data
- Increased efficiency, discipline
- Intercom calls, group calls, DID access and a host of other enterprise solutions without using the public cellular spectrum.
- Increased security in Homes and at Workplaces
- Decreased traffic load on the cellular systems in urban areas. DECT will support the local mobility needs within establishments that otherwise cellular systems could provide.
- Man/machine communications possible – hospitals / hotels
- Covers even the most radio remote areas of organization
- Can integrate into existing wireline PBX & IP-PBX etc
- Location services

DECT World Map - Year 2010



World Market Share 2010 (increases each year):

Residential + SOHO: 82% of totally 5300 M US$ (Source: MZA Ltd 2011)

Enterprise mobility PBX: 65% of totally 900 M US$ (Source: MZA Ltd 2011)
78% in Europe (Source: ASCOM 2008)

DECT FUTURE - CATiq

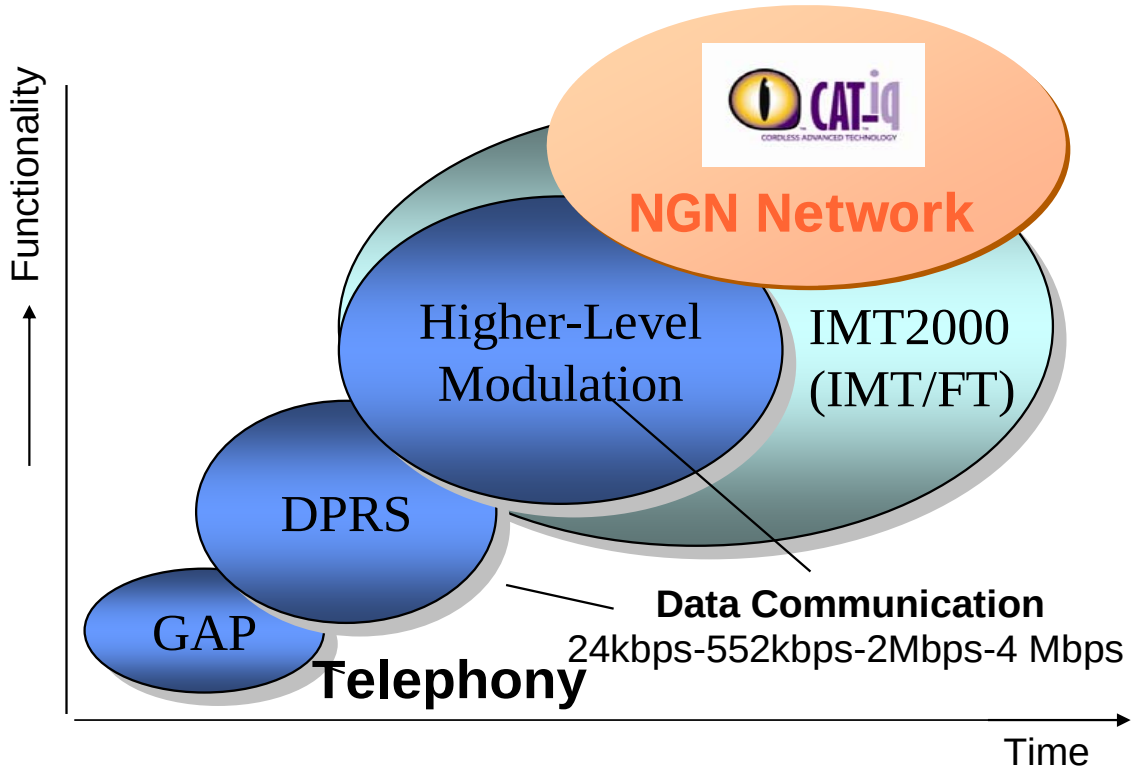
- **CATiq - Cordless Advanced Technology - Internet & Quality - next generation Standard for DECT.**

- **Designed for voice & IP - light data services for NGN.**

- **Wideband audio (HD-Audio), audio streaming, internet radio, news tickers, healthcare, remote patient monitoring, trauma team alert, baby/elderly monitoring, accurate location service, over the air administration, surveillance, security, remote monitoring, smart meters, smart home controls, M2M applications and other sensor applications.**

- **In cooperation with Home Gateway Initiative(HGI) and ETSI. DECT handsets for access/display while GW runs application.**

DECT - IMT-2000 technology
CAT-iq Developed for NGN



DECT is a member of the ITU IMT-2000 family: “IMT-2000 FDMA/TDMA (DECT)”

DECT is the only IMT-2000 family member optimized for unco-ordinated use on an unlicensed spectrum

DECT has since many years been operating on parts of the IMT-2000 spectrum all over the world, in line with being an IMT-2000 family member

DECT has a unique capability of providing high quality voice and data services on an unlicensed protected spectrum. No substitute is foreseen within 5-6 years or more.

CCT TECH

The New Generation DECT Home Phone

Residential/ Small Office Intercom with 6-10 handsets with or without operator console
Optional laptop dongle/ alarm/ message terminal

IP-DECT Solution

Seamless handover

Legacy Base Stations

IP-DECT Base Stations

1.5km

100m

IP-DECT Gateway

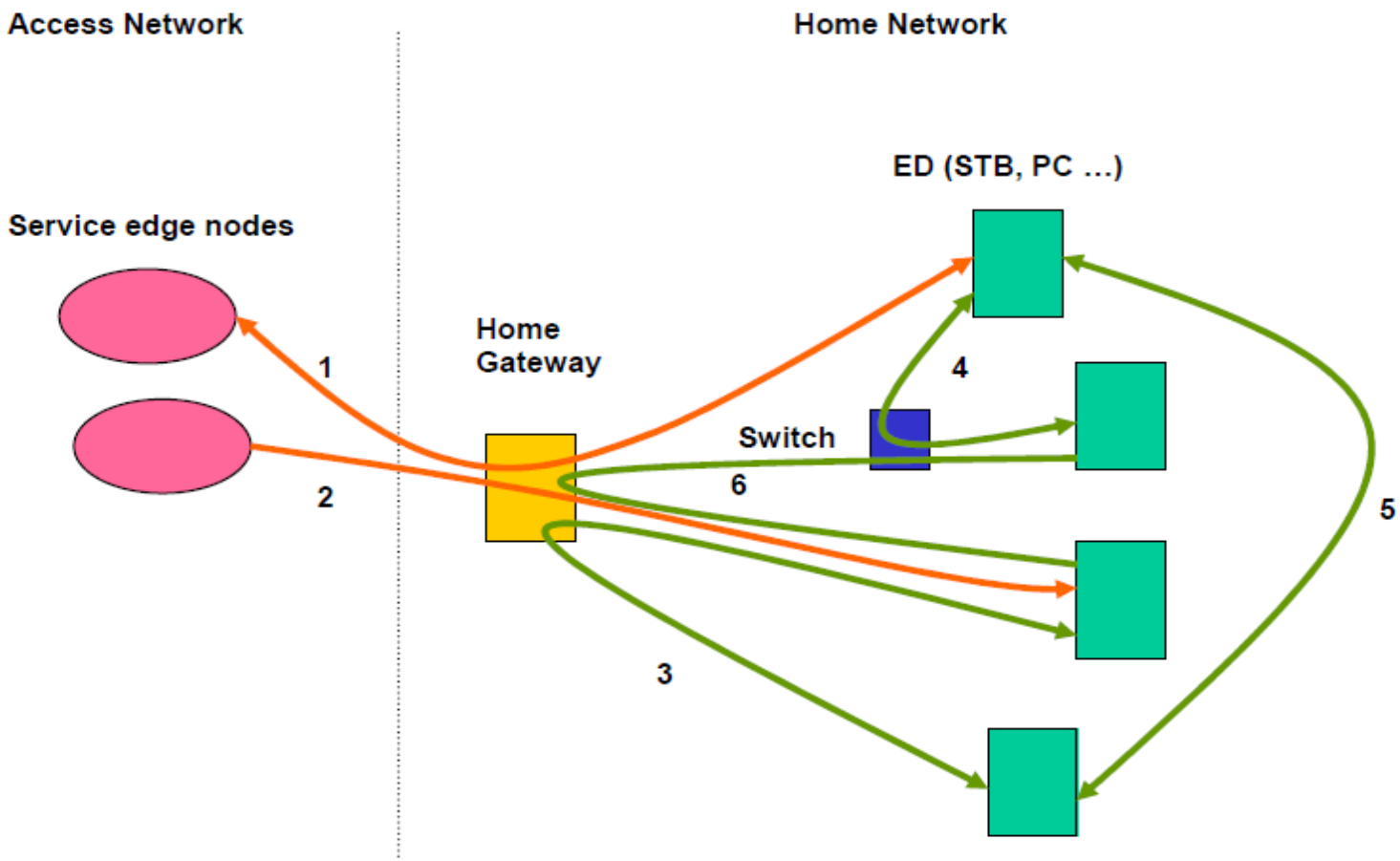
IP-DECT Gateway

ASCOM 2008

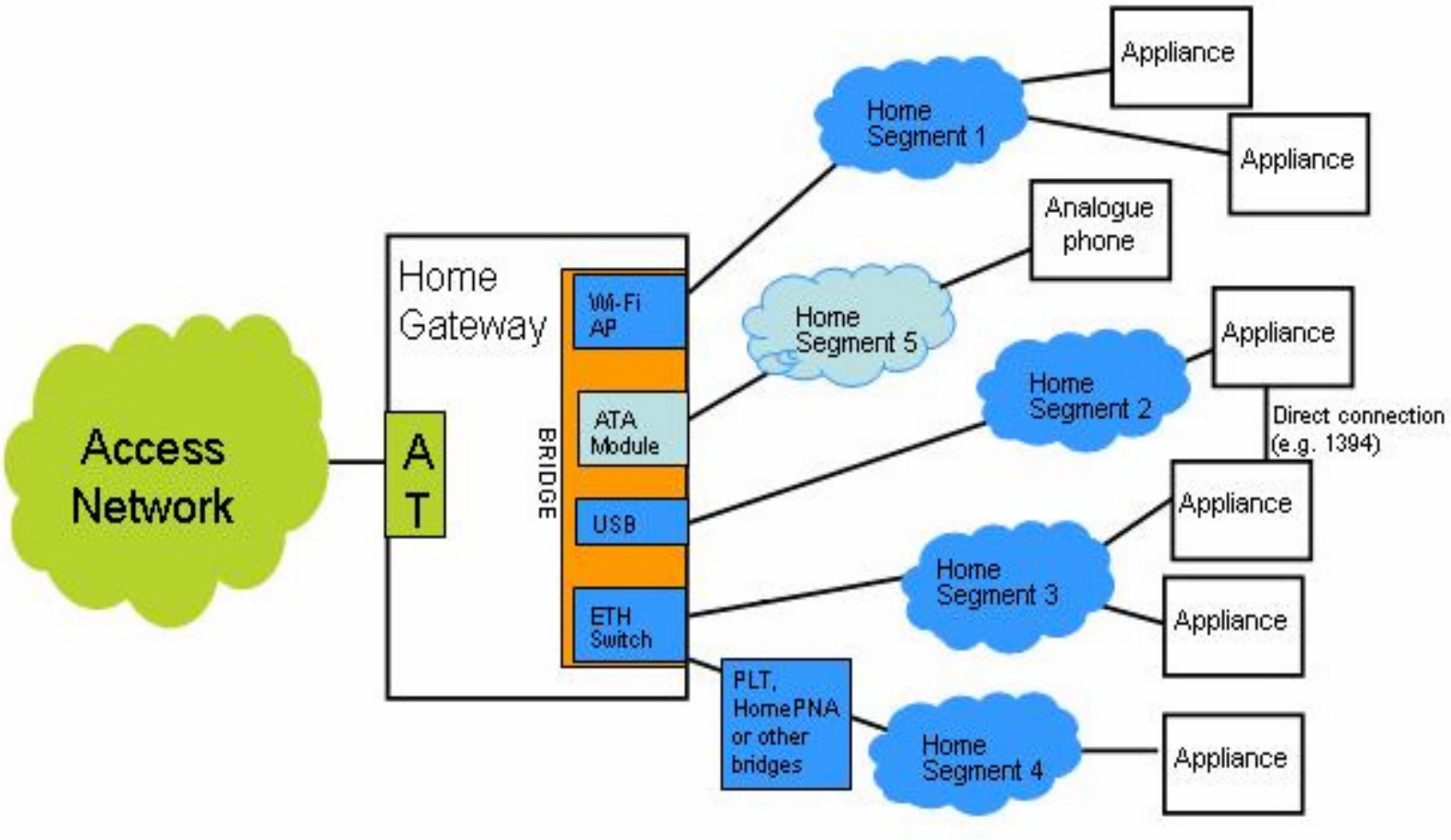
IP Network

Telephony Switch A Vendor X	Telephony Switch B Vendor Y	Telephony Switch C Vendor Z	Unite Interface & Application Suite

HOME GATEWAY STRUCTURE



HOME NETWORK ARCHITECTURE



DECT FORUM INDIA

Association of the Global Home and Enterprise Communication Industry

FULL Members (28)

ASSOCIATED Members (18)

THANK YOU

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